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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,062	12/11/2000	Matthew D. Brown	91436-289	2762
22463	7590	03/26/2004	EXAMINER	
SMART AND BIGGAR 438 UNIVERSITY AVENUE SUITE 1500 BOX 111 TORONTO, ON M5G2K8 CANADA			LOHN, JOSHUA A	
			ART UNIT	PAPER NUMBER
			2114	4
DATE MAILED: 03/26/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/733,062	Applicant(s) BROWN ET AL.	
	Examiner Joshua A Lohn	Art Unit 2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 December 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/11/00</u> | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4 and 9-12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 15-18 and 6-10 of U.S. Patent No. 6,505,310. Although the conflicting claims are not identical, they are not patentably distinct from each other because any differences are obvious.

As per claim 1 of the instant application, claim 15 of the patent discloses receiving connection control signals, and receiving a plurality of input and output signals, as shown in the providing a fault indication path for all outputs and inputs. The patent further discloses at least one of the selecting one of the plurality of input signals and the selecting one of the plurality of output signals is based on the connection control signals, see column 11, lines 17-20, where the connection control signals are used to select one output corresponding to an input. The patent also discloses determining a connection integrity status indicator from the selected input signal and output signal, in the form of the connection fault detection that compares the mapped input

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data signal to the corresponding output path signal. The patent does not disclose selecting only one of the plurality of input signals and selecting only one of the plurality of output signals.

It would have been obvious to one skilled in the art at the time of the invention to have a selection of only one input and only one output.

This would have been obvious because the invention described in the patent is used for checking the integrity of all the data lines of a switched connection circuit. In a switching situation, it would have been obvious that a need exists to have corresponding inputs and outputs checked, as is taught by claim 15 of the patent. This need would have required selecting one input at a time and then selecting a single output, while this action would have had to be repeated, it still satisfies the limitations as stated in claim 1 of the instant application.

As per claim 2 of the instant application, the limitations are all described in claim 16 of the patent with the fault indicating output path corresponding to the connection integrity status indicator of the instant application.

As per claim 3 of the instant application it is obviousness-type double patenting over claim 17 of the instant application for all the reasons mentioned previously.

As per claim 4 of the instant application, the limitations of matching a delay of the two signals being compared is disclosed in claim 18 of the patent. The additional limitations resulting from the dependencies of claim 2 of the instant application, involving using the difference of the two signals, are obvious from claim 16 of the patent which shows that it would have been obvious for the comparing of claim 15 to use a difference of the two signals.

As per claim 8 of the instant application, claim 6 of the patent disclose a comparison map for receiving the connection control signals. Claim 6 of the patent also discloses a secondary

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connection circuit that includes the function of the input selection circuit and the output selection circuit to receive the plurality of inputs and output signals and the secondary connection circuit also uses the connection control signals to select an output corresponding to an input. The patent also discloses a comparison circuit that acts as a comparator that receives a primary output, which corresponds to the output, and a secondary output, which corresponds to the input and determines a connection integrity status indication from each pair of corresponding inputs. The patent fails to explicitly disclose selecting only one input and one output and using these in the comparison.

It would have been obvious to one skilled in the art at the time of the invention to have a selection of only one input and only one output for use in the comparison.

This would have been obvious because the invention described in the patent is used for checking the integrity of all the data lines of a switched connection circuit. In a switching situation, it would have been obvious that a need exists to have corresponding inputs and outputs checked, as is taught by claim 6 of the patent. This need would have required selecting one input at a time and then selecting a single output, while this action would have had to be repeated, it still satisfies the selection limitations as stated in claim 8 of the instant application. Further since the patent discloses checking each input to its corresponding output, it would have been obvious to use these selected signals to determine the connection integrity status for the related connection.

As per claims 9-12 of the instant application, the limitations are all described in claim 7-10 of the patent.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9 and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by

Roberts, United States Patent no. 6,005,695, filed June 13, 1996.

As per claim 1, Roberts discloses a method for monitoring a connection unit, see element 1 of figure 2. Roberts also discloses receiving connection control signals, see column 3, line 66 through column 4, line 6. Roberts discloses receiving a plurality of input signals and a plurality of output signals, see column 3, lines 44-55. Roberts discloses selecting one of the plurality of inputs and one of the plurality of outputs to be the selected signals, see column 3, lines 56-65. Roberts discloses at least one of the selected input and selected output is selected based upon the connection control signals, see column 4, lines 1-6. Roberts discloses determining a connection integrity status indicator from the selected input and the selected output, see column 1, lines 40-46.

As per claim 2, Roberts discloses the connection integrity status indicator comprises generating a signal indicative of a difference between the selected input and the selected output, see column 4, lines 21-60, where the correlation is calculated and output.

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As per claim 3, Roberts discloses if the difference indicative signal exceeds a threshold, indicating a connection fault, see column 1, line 64 through column 2, line 3, where the threshold must be exceeded to avoid false indication of faults.

As per claim 4, Roberts discloses before the generating, matching a delay of the selected input to a delay of the selected output signal, see column 4, lines 34-36.

As per claim 5, Roberts discloses the selecting of both one input and one output signal is based on the connection control signals, see column 3, line 66 through column 4, line 6, where a control signal is used to determine the correlation of the output and input signal that is selected to be used in the fault detection system.

As per claim 6, Roberts discloses the selecting of the one input signal is performed arbitrarily, see column 3, line 66 through column 4, line 6, where the selection is based upon having a correct input and output relationship, no requirement is made as to which input, and its related output, need be selected.

As per claim 7, Roberts discloses the selecting of the one output signal is performed arbitrarily, see column 3, line 66 through column 4, line 6, where the selection is based upon having a correct input and output relationship, no requirement is made as to which output, and its related input, need be selected.

As per claim 8, Roberts discloses a comparison map for receiving the connection control signals, see column 4, lines 1-6 and 27-31, where the switching circuitry acts as a comparison map to receive the connection control signals and ensure comparison between the correct input and output. Roberts further discloses an input selection circuit for receiving the plurality of

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input signals and selecting one of the plurality of input signals as the selected input signal, see column 3, line 66 through column 4, line 6. Roberts also discloses an output selection circuit for receiving the plurality of output signals and selecting one of the plurality of output signals to be a selected output signals, see column 3, lines 56-65, where the output selection circuit is the group of comparison means provided for each output, and a selection is made to have one selected output to a particular comparison unit, which is connected to the input selection circuit as well. Roberts also discloses the selecting of one of the plurality of input signals and one of the plurality of output signals is based on the connection control signals, see column 4, lines 1-6. Roberts discloses a comparator for receiving the selected input and output signals, and determining a connection integrity status indicator from the selected input and output signals, see column 4, lines 21-61.

As per claim 9, the comparator includes a difference circuit for generating a signal indicative of a difference between the selected input and the selected output, see column 4, lines 21-60, where the correlation is calculated and output.

As per claim 11, Roberts discloses the comparator including a threshold detector for determining whether the difference indicative signal exceeds a threshold, see column 4, lines 59-63.

As per claim 12, Roberts discloses the comparator comprises a filter for filtering the difference indicative signal, see column 5, lines 4-9, where the threshold value can act as a filter to remove the effects of noise on the difference indicative signal.



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As per claim 13, Roberts discloses a method for monitoring a connection unit, see element 1 of figure 2. Roberts also discloses receiving connection control signals, see column 3, line 66 through column 4, line 6. Roberts discloses receiving a plurality of input signals and a plurality of output signals, see column 3, lines 44-55. Roberts discloses selecting one of the plurality of inputs, see column 3, lines 56-65, and having the selected input signal being based on the connection control signals, see column 4, lines 1-6. Roberts discloses determining a connection integrity status indicator from the selected input and the received one of the plurality of output signals, see column 1, lines 40-46.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts in view of Jackowski et al., United States Patent no. 4,561,094, filed June 29, 1983.

As per claim 10, Roberts fails to disclose a difference circuit comprising an Exclusive OR gate.

Jackowski discloses a difference circuit that employs the use of an Exclusive OR gate, see column 2, lines 35-50.

It would have been obvious to one skilled in the art at the time the invention was made to include the Exclusive OR gate circuitry of Jackowski in the invention of Roberts.

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This would have been obvious because Roberts discloses a system for checking the input and output of an interface with multiple inputs and multiple outputs, see column 3, lines 40-55. Jackowski also discloses a system for checking the input and output of an interface with multiple inputs and multiple outputs, see the figure, and column 2, lines 40-43. The invention of Roberts discloses using either digital or analog means for matching the input and output signal, see column 4, lines 24-25, but discloses only a complex multiplication system, most appropriate for an analog system, see column 4, lines 21-45. It would have been obvious at the time of the invention that a purely digital system would not require the complex system disclosed by Roberts. In response to the disclosure of Roberts that the system could be checked by only digital means it would have been obvious to use a circuit such as that taught by Jackowski to compare. This would have been obvious because the invention of Jackowski discloses a successful means for comparing two digital signals with the improvement of simpler circuitry when working in a digital environment.

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*Conclusion*


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is listed on form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua A Lohn whose telephone number is (703) 305-3188. The examiner can normally be reached on M-F 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoleil can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAL

  
**SCOTT BADERMAN**  
**PRIMARY EXAMINER**